

KETCHUM RURAL FIRE PROTECTION DISTRICT

FIRE MITIGATION PLAN

Background

The Blaine County Community at Risk encompasses an area of 2,660.57 square miles or 1,702,765.84 acres located in the mountainous central portion of Idaho. The State of Idaho owns approximately 4% of the county's overall land mass. All federal lands within the county are estimated to total 78%. Private lands total 450 square miles or approximately 18% of lands within Blaine County.

The total net value of taxable property for the 2004 to 2005 Blaine County Budget is \$8,060,841,150. The population growth rate for Blaine County averages 3.65% per year relative to a total population that is currently estimated to be 21,000.¹ Private properties that are within and protected by a fire jurisdiction total 351.3 square miles or approximately 72% of Blaine County private lands. Blaine County fire agencies protect approximately 13% of the total land area in Blaine County.

The elevations within Blaine County range from the lowest elevation of 3,100 feet above sea level to the highest elevation of 11,900 feet above sea level. Most of the populated areas are located between 4,000 and 6,000 feet above sea level.

Vegetation types in Blaine County are predominantly sage brush steppe, coniferous forest stands including Douglas fir and Lodgepole pine, scattered aspen stands associated with conifer stands, and cottonwood, willow and alder riparian zones. Currently the United States Forest Service is working on fuels reduction project in the Warm Springs Drainage on Federal Land that abuts Ketchum Rural Fire Protection District within Blaine County.

This fire mitigation plan and others in Blaine County are funded by a grant from the US Department of the Interior - Bureau of Land Management. Grants are provided specifically for Communities at Risk as designated in the Federal Register. This Fire Mitigation Plan covers the Ketchum Rural Fire District. Two other Fire Mitigation Plans have been created concurrently with this Plan. They are the **Wood River and City of Hailey Fire Mitigation Plan** and the **Blaine County Fire Mitigation Plan**. The City of Sun Valley Fire Department Fire Mitigation Plan was completed in 2002 as a test project with funding provided by the Bureau of Land Management through the Communities at Risk program. Other fire mitigation plans that have been completed through funding under the Communities at Risk granting program are available for review at the National Fire Plan website: www.fireplan.gov.

¹ Statistics from the Blaine County Financial Report www.co.blaine.id.us/blaine%20County%20Insertx.pdf

CONCERNS AND PRIORITIES OF AREA FIRE AGENCIES

Ketchum Rural Fire Protection District Chief Greg Schwab

The combined Ketchum agencies protect the Ketchum Rural Fire Protection District and the City of Ketchum through a joint use of apparatus, personnel and facilities.

The area protected within the rural fire district consists mainly of high value residential properties in a *rural* environment (less than 400 people per square mile). There are several grand fathered non-conforming light industrial uses and a conforming hospital use.

The area protected within the city consists of commercial and residential properties in a *suburban* environment (400-2000 people per square mile) with a wildland urban interface and wildland urban intermix as defined in the National Fire Protection Association (NFPA) Standard 1143.

The personnel of the district/department consist of 50 personnel operating out of three stations. Eleven of the personnel are fulltime career employees. The department also provides Emergency Medical Services (EMS) response and transport responsibilities to North Blaine County at the Paramedic Level.

The location of the Headquarters Station One is in the City of Ketchum. Station 3 is located north of Ketchum on Highway 75 near the entrance to the Hulen Meadows Subdivision. Station 2 is located south of Ketchum on Highway 75 across from the Greenhorn Gulch Road.

The apparatus of the combined district and department are six (6) Type I Structure Engines (two have CAFS's), one (1) Type 6 Wildland Engine, one (1) aerial tower, three (3) ambulances, two (2) command units and two (2) command/support vehicles.

Chief Schwab has implemented a Wildland Firefighting Training Program that is currently being used to meet the objectives for all required classes that lead to certification as Engine Boss and Type IV Incident Commander. The program will be evaluated over a three-year period by the federal agencies to determine if certification will be allowed.

Concurrently firefighters are also encouraged to attend classes presented by the Southeastern Idaho Cooperative to obtain certifications as desired.

Classes are scheduled and will be conducted by the South Central Idaho Cooperators in Bellevue. This was determined following a survey conducted by Chief Schwab of all South Central Idaho Cooperators (SCIC). The survey noted that of all the students throughout the SCIC the majority was located in Blaine County. This led to the establishment of classes within Blaine County.

Some noted obstacles to wildland training with the Cooperative are:

- The federal agencies audience is usually 18-20 year-old new firefighter trainees. The rural agencies structural firefighters are older, experienced and have already received training in "Essentials of Firefighting" and "The Incident Command System". There is a reluctance to revisit topics previously learned while participating in the co-op program. This is perceived to be an obstacle to higher education and certification of the structural forces.

- Wildland training is based on hours spent in the particular class. This does not give credit for previous fire training. There is a desire to have a competency-based program that allows experienced firefighters to reduce training time by building on previously learned concepts.
- There is currently no suitable training facility that meets the needs of federal and local agencies to cooperatively conduct wildland fire training for firefighters and fire managers in the Blaine County area. The local and federal agencies work together in initial attack and long campaign operations which would be enhanced by regularly training together.

There is the suggestion that the annual Urban Interface Drill between agencies be first conducted as a tabletop exercise with the incident command staff. This would allow greater opportunities for interagency cooperation prior to involving the many personnel and vehicle resources on the ground and in the air.

Desired outcomes of the Fire Mitigation Plan

Fire prevention and mitigation issues of greatest concern to The Ketchum Rural Fire Protection District include:

- Improve Firefighter Safety
- Target Fire Hazards and Risks
- Reduce Wildland/Urban Interface Risk
- Bring Building Officials, Planners and Fire Officials together.
- Reduce the Challenges of delivering Public Education in a Tourist Community
- Improve and standardize all Blaine County Fire Protection Ordinances and their enforcement.
- Bring contractors, architects, Landscape architects and fire officials together.
- Compliment other Living Documents i.e. Ketchum Rural Fire Protection District and Ketchum Fire Department Master Plan, Blaine County Disaster Plan, National Fire Plan, etc.
- Show impacts of 2nd homeowners/homes greater than 6,000 ft².
- Show improvements to the rural infrastructure – bridges, water supplies, etc.
- Improve fire agency Interoperability between federal and local levels.
- Provide solutions to the limitations of our Emergency Communications system.
- Reduce fuel loading – show risks of a single species forest – Support Healthy Forest Initiatives.
- Help adapt fire services with Blaine Counties' growth.
- Streamline and standardize Wildland Fire Training for all agencies.
- Show the Impact of fire on our Tourist/Resort Economy.
- Show how Ketchum Fire can better help neighboring communities without fire protection.

Currently fire prevention/public fire education is conducted as follows:

- Fire Prevention Week Program addresses fire and accident prevention at the preschools and the Hemingway Elementary.
- Introductory Fire Safety Program for preschoolers.
- Inspections of all daycares and preschools with an emphasis on exit drills.
 - Periodic fire inspections of all businesses within the city.
 - Firefighter Appreciation Day in May provides the community with displays and information packets.

What would you like to see implemented regarding fire prevention/public fire safety education?

- Implementation of a Wildland/Urban Interface film “leader” presented at the local cinemas that encourage “Firewise” building and safety practices in the community. The fuels shown should reflect the local area silviculture.

- Develop a coalition between the fire agencies, planners, building officials, building contractors and architects to obtain a Firewise Community.
- Additional personnel to accomplish greater public fire safety awareness in the schools, throughout the community and to accomplish fire safety inspections throughout all businesses annually.
- Local residents make up only 25% of the homeowners. This challenges the ability of the fire agency to make fire prevention contacts. This is especially a problem in relation to use of fireworks, solid fuel burner fire safety and creation and maintenance of a Firewise landscape. A greater reliance on the public media to deliver the fire safety message is needed. At the time visitors are in the area a professional media fire safety message needs to be delivered. The message should be appropriate for the fire danger presented at the time. Winter calls for solid fuel safety presentations along with smoke detector awareness. Spring would be appropriate for a Firewise landscape campaign. Summer can address the legality and safety of fireworks in addition to the approaching wild land fire threat.
- A Public Fire Education/Media Coordinator would be a valuable person to have on staff to meet the needs of fire safety education delivery.
- Provide Firewise Community Education workshop/meeting mid summer each year.
- A "Public Fire Safety Education Trailer" has proven to be a valuable tool in other communities in promoting fire education. The trailer can be stocked with materials, and hardware to make presentations at events where large groups congregate. Examples are:
 - ✓ Provide fire mitigation information and demonstrations in neighborhoods during the spring and summer.
 - ✓ Highlight fuel reduction demonstrations and provide information to consider home fuels modification.
 - ✓ Set up at events like gallery walks, Wagon Days, Fourth of July Parade and the Blaine County Fair to reach both the visitor and local population.
 - ✓ A Public Education Trailer could also be used at Fuels Reduction Events in neighborhoods to encourage greater participation and provide a central location for coordination of neighbors, contractors and fire agency personnel.
 - ✓ The trailer might be used at the base of Bald Mountain in the winter to promote solid fuel burner safety and show fuels reduction mitigation projects that were completed previously.
- Implement a fuel and structure hazard evaluation program within the fire district and electronically share the data with all users and present hardcopies to homeowners.

Communications

- Interoperability of communications of all agencies is in dire need of equipment and procedures to insure the safety of all responders and the public
- Agencies operate on different frequencies and in the short term a radio operational plan is being devised to help overcome some deficiencies in this area. (See attachment)
- E911 is being implemented through a phone levy within Blaine County. The monies currently available do not meet the needs of the agencies to overcome the interoperability problem between police, fire, emergency medical services and the federal agencies. This will be compounded when the federal agencies meet the federal mandate to switch to narrow band digital technology by 2005¹. Rural agencies currently possess wide band equipment.
- Radio coverage of the current frequencies is deficient in many areas as noted in the mapping analysis completed by Alpine Enterprises in 2004².

¹ National Wildland Coordinating Group, Meeting Minutes, Nov 14-15 2000, Boise, ID

- Mobile Data Technology is not available for vehicle response to incidents, which would provide mapping, history of prior incidents and most importantly visual acknowledgement of the necessary response information such as address, situation status, water source location and any other responding units. This would greatly reduce the amount of radio traffic and insure acknowledgment of correct information.
- The current frequencies are set aside as National Fire Mutual Aid frequencies:
 - 154.265 (Red)
 - 154.280 (White)
 - 154.295 (Blue)

Current Code Analysis

- Current adopted codes are the Ketchum Ordinance 909 and Blaine County Ordinance 02-04.
- In the city automatic fire sprinkler systems are required in all buildings over 6,000 square feet.
- Monitored alarm systems are required in various occupancies
- Buildings over 3,000 square feet are required to have a Class “A” roof assembly. The code allows the use of solid wood products as roofing materials.
- A fireworks provision requires a permit to sell fireworks and limits the dates of sale and use of those fireworks. Sale of fireworks is limited to “Non-aerial Common Fireworks only”.
- Current building codes do not take into consideration the impact of the Wildland/Urban Interface problem as it relates to exterior construction and the use of solid wood products for roofing materials.
- The Blaine County Ordinance dictates the requirements for fire safety in the Ketchum Rural Fire Protection District. Buildings of 4,000 square feet or greater require a minimum water supply of 10,000 gallons (500 gallons per minute for 20 minutes) or approved fire sprinklers or an area separation wall.
- A minimum 30-foot clear zone is required as approved by the fire official.
- The fire flow requirements of Appendix B of the International Fire Code are exempted from the Blaine County Fire Code. The exemption results in lower fire flow requirements for structures in the county.
- The use of ponds and other similar static water sources for decoration and/or fire protection are contrary to the Blaine County Board of Commissioners water policy discouraging such uses.
- Blaine County is designated as a “Community at Risk” from wildfire in the list of such communities in the Federal Register.
- The current Blaine County Building Code does not address the issues of the threat of wildfire in the interface zone as it relates to exterior construction.
- Discussion with the fire and building code officials raised the issue of the lack of resources to adequately monitor and enforce code violations.

Fireworks

- Prohibit fireworks stands outside of city limits.
- Education of fire and law enforcement personnel in the knowledge of fireworks laws.
- Consistent and vigilant enforcement of fireworks ordinances throughout the cities and county.

Personal Protective Equipment (PPE)

- Firefighters are required to be equipped with Personal Protective Equipment (PPE) that meets the National Fire Protection Association Standard 1977. This includes a fire resistant shirt and pants, helmet, eye protection, leather gloves, 8” tall lace up leather boots and a fire shelter. It is

recommended that each person have a backpack for personal equipment and at least 2 quarts of drinking water.

- It is recommended that a cache of ten percent of all Personal Protective Equipment (PPE) be available for replacement of PPE that becomes unserviceable at an incident.
- The Ketchum rural and city fire agency has a replacement plan (see attachment Bureau of Land Managers Rural Assistance Five Year Plan 2004-2008) for Personal Protective Equipment that is currently funded through the Bureau of Land Management Rural Assist
- Grant Program. The plan calls for the replacement of eight sets of Personal Protective Equipment (PPE) each year through 2008. Approximately eighty-six sets of PPE are required to outfit the current staff with nine additional sets required for replacement at an incident. A total of ninety-five sets of PPE are needed presently with only seventy-eight on hand. Currently there are 74 riding positions with 46 fire shelters available. Two spare shelters are requested for each station. 24 shelters are needed to bring all riding positions into compliance. The Plan calls for replacement of current shelters with new generation shelters when they become available. Gloves are proposed to be replaced at 20% of the stock each year.³
- Additional funding will be required to increase the number of sets of Personal Protective Equipment required on an annual basis.

Wildland Urban Interface Apparatus

TYPE	UNIT ID	MODEL	USEFUL LIFE	CAFS	Tank Gallons	Pump GPM
TYPE-1	ENGINE 1	Pumper	0 Year	No	750	1500
TYPE-1	ENGINE 10	Pumper	3 Years	No	1000	1500
TYPE-1	ENGINE 3	4x4 Pumper	7 Years	Yes	750	1000
WT-1	TANKER 2	Pumper/Tanker	2 Years	No	3000	500
WT-1	TANKER 3	Pumper/Tanker	12 Years	No	3000	750
TYPE-1	ENGINE 2	Pumper	20 Years	Yes	750	1250
WE-6	ENGINE 20	Wildland Engine	2 year	No	250	300

Command Vehicles

Command		4x4 Ford	8 Years			
Command		4x4 Chevrolet	7 Years			
Command		4x4 Chevrolet	2 Years			
Command		Chevrolet Van	16 Years			

Other Apparatus

3 Ambulances

1 100' Aerial Platform

The above wildland apparatus meet the standard established by the National Wildland Coordinating Group (see attachment). The replacement program is outlined above with a replacement for Engine 1 currently on order. The scheduled replacement for Engine 20 will be a TYPE-3 Engine with CAFS capability. This replacement is critical due to community growth, the current fuel load of the wildland intermix and the improvement of firefighter safety. Acquisition of Engine 20 is currently at risk due to a lack of funding sources.

Wildland Equipment

- Through the Rural Assist Grant Program there is a plan to provide Progressive Hose Packs (9 sets needed over 3 years), Day Packs (11 needed over 4 years), Hose (2 years goal), 6 Tool Sets, 1 portable pump, chain saw, 8 Global Positioning System receivers over 4 years, 6 weather kits for each command vehicle over 3years. ³
- Funding can be an issue as the federal budget priorities shift.

³ **Ketchum / Bureau of Land Management Rural Assistance Grant Five Year Plan 2004-2008**

Federal and Rural Fire Agency Interoperability

- Seek the establishment of the Bald Mountain Wildland Fire Coordinating Workgroup consisting of US Forest Service-Sawtooth National Forest, Bureau of Land Management-Upper Snake River District, Wood River Fire Protection District, Bellevue Department of Public Safety, Hailey Fire Department, Ketchum Fire Department, Ketchum Fire District, US Forest Service-Sawtooth Helitack, Friedman Memorial Airport Rescue Fire Fighting, Sawtooth Valley Fire District, Department Of Interior-Craters of the Moon National Monument, Carey Fire District, West Magic Fire District, South Central Idaho Fire Cooperative, Sawtooth City Fire District and Sun Valley Fire Department.
- A Draft Plan has been proposed by Chief Schwab to establish the Bald Mountain Wildland Coordinating Group and meet monthly through the months of January thru September.
- The Host Agency should be prepared to present a predetermined topic for discussion by the group.
- The purpose of the meetings is to foster greater cooperation and bring all members up-to-date on wildland urban interface issues throughout the region.

See Bald Mountain Wildland Fire Workgroup, Chief Schwab 2/24/04

IDAHO SURVEY AND RATING BUREAU CLASSIFICATION

The Idaho Survey and Rating Bureau assigns fire protection classes to the City of Ketchum and the Ketchum Rural Fire District for the purposes of establishing advisory insurance rates. Class 1 is the most favorable rate with Class 10 being unprotected.

In the City of Ketchum:

- Class 3 applies to all properties with a needed fire flow of 3,500 gallons per minute or less.

In the Ketchum Rural Fire District:

- Class 5 applies to all properties within 600 feet of an approved fire protection water source.
- Class 8 applies to properties beyond 600 feet of a fire hydrant and within 5 miles of a fire station.
- Class 9 applies to properties between 5 and 10 miles of a fire station.
- Class 10 applies to properties beyond 10 miles of a fire station.

The classification results are not a comprehensive review of all aspects of a public fire protection program and should not be used for purposes other than insurance pricing. Many factors concerning life and property safety need a more complete analysis to address the community fire problem. The survey does not differentiate between properties in an urban setting versus a wildland/urban setting. However the individual insurance companies will likely attach a surcharge to insurance premiums for homes with a solid wood product roof.

The rating schedule does not differentiate between communities having 9-1-1 and Enhanced 9-1-1. E-9-1-1 improves life and property protection many times over by providing quick access to the location of the caller reporting the emergency. The rating system is silent also on the issue of interoperability of communications between all agencies, which is necessary for the large-scale conflagrations in the wildland/urban intermix. There are many other areas of fire protection not evaluated to the extent needed to give a community its life and property safety rating.

The schedule is a good indicator of many needs for fire protection. The survey shows that The City of Ketchum Fire Department improvements having the most impact on lowering insurance rates would be:

1. Increase the number of available personnel.
2. Training documentation.
3. Additional Ladder Service.

Improvements having the most impact on the Ketchum Rural Fire Protection District insurance rating would be:

1. Locating properties within 600 feet of an approved water supply.
2. Increase the number of available personnel.
3. Training documentation.

Keep in mind the above improvements would impact insurance rates, not necessarily life safety. The primary concern of Fire Departments and Fire Districts is life safety and additional improvements are sometimes needed to meet the challenges of fire in that regard. Wildland Interface problems increase the need for specialized interface apparatus and trained personnel to combat fires in the initial stages. This helps prevent conflagrations and allows for orderly evacuation of people and the response of outside agencies. The Idaho Survey and Rating Bureau points to deficiencies in their survey that could be even more critical in a wildland fire that threatens a subdivision.

Possible considerations to reducing the deficiencies in Number of Personnel, Water Supply in the rural areas, additional ladder service and Training Documentation

- Recruitment and retention of additional personnel.
- Improve training records.
- The addition of a ladder company
- Extension and improvement of the fire protection water systems in the rural fire district.
- All entities have considered some type of consolidation in the past. Consolidation would have a synergistic effect on the personnel count of a single entity.
- An additional synergistic effect could be obtained county-wide by consolidation of apparatus at properly located stations to overcome the issue of company distribution. This would likely improve future cost avoidance for all entities.
- A consolidated area fire training center presents a cost saving alternative to attempting to provide facilities for each fire agency. A single facility would be able to put the savings into building a better facility for training. A partnership with federal, city and rural fire agencies would provide a location for all agencies to train in wildland and structural firefighting.

Fuel Reduction

- See mapping provided by Alpine Enterprises Inc.
- Mitigation programs, citizen use of equipment to accomplish property fuel reduction.
- Contractor fuel reduction.
- Reduction of building fuels by implementation of stringent codes and enforcement.
- Implement and complete a hazard survey of properties in the wildland interface zones.